

IN THE CLAIMS:

The following is a complete listing of claims in this application.

1. (currently amended) A method for ~~improving fatigue strength~~ ~~restricting the reduction rate of fatigue strength~~ of a titanium part subjected to surface oxidation treatment, comprising the steps of:

correlating hardness of a hard oxide film to be formed on a surface of the titanium part against thickness of the film to determine an effective thickness corresponding to a predetermined desired film hardness;

correlating the hardness against surface roughness of the hard oxide film to determine an effective surface roughness corresponding to the desired film hardness; and

oxidation treating the surface of the titanium part under conditions of temperature and time such that both of the effective thickness and effective surface roughness corresponding to the desired film hardness are obtained,

wherein the effective thickness is 14 micrometers or less, and the effective surface roughness Rz is 3.0 micrometers or less.

Claims 2-4 (canceled).

5. (original) A method as defined in claim 1, wherein the desired treating temperature is 730 degrees C or less.

6. (previously presented) A method as defined in claim 1 further comprising the step of treating the surface of the titanium part after the oxidation treating step.

Claims 7-9 (canceled).

10. (previously presented) A method as defined in claim 1, wherein reduction rate of the fatigue strength is less than 20%.